Putting gross anatomy into the curriculum: New anatomy syllabi for nursing and pharmacy students

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Letter to the Editor

Putting gross anatomy into the curriculum: New anatomy syllabi for nursing and pharmacy students

Gabrielle M Finn[1], Siobhan Connolly[2], Thomas H Gillingwater[2], Claire F Smith[3]

[1]Health Professions Education Unit, Hull York Medical School, University of York, York, United Kingdom

[2]Department of Anatomy, University of Edinburgh, Edinburgh, United Kingdom

[3] Department of Medical Education, Brighton and Sussex Medical School, University of Sussex, Brighton, United Kingdom

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To the Editor, *Anatomical Sciences Education*:

An understanding of anatomy is clinically relevant for all allied health care professionals. This includes knowledge of where and how to palpate, percuss or auscultate - essential skills for adequate assessment, provision of treatment and ongoing care of patients. Therefore, linkage of anatomy and clinical assessment is essential. The Anatomical Society has recently completed a significant volume of work to develop core anatomy syllabi for nursing and pharmacy students (Connolly et al., 2018; Finn et al., 2018). These syllabi have been developed in order to improve the standards of anatomical knowledge within allied health professions. Therefore, we hope that these will be of interest and use to your readership.

The role of the pharmacist has changed from one that was traditionally based solely around dispensing to one that encompasses treatment, diagnosis and acting as the first port of call for patients (Ridge, 2015; Finn et al., 2018). Given this seismic shift, it has never been more important for pharmacy graduates to have a strong foundation upon which to build their pharmacological knowledge- this includes anatomy. Similarly, nurses are now responsible for significantly more procedures, many of which are underpinned by the requirement for a sound anatomical knowledge – the need for nurses to be anatomically competent has never been greater (Connolly et al., 2018). Improving the anatomical knowledge of healthcare professionals has direct, positive implications for patient safety. It is imperative that healthcare professionals have a solid grounding in gross anatomy. A failure to grasp these

essential building blocks could have a significant, detrimental impact on patient care and safety. A nurse needs to understand the anatomy of the heart before performing an echocardiogram or a appreciation of what is responsible for the vital signs they are so diligently monitoring in a patient; a pharmacist needs to appreciate the routes of drug delivery from an anatomical as well as biochemical perspective, or the anatomy of the site they are injecting into.

There are currently no formal guidelines that outline the extent and depth of anatomical knowledge required for safe practice by allied health professionals. This makes for variable practice across higher education institutions delivering such training. Disciplines such as medicine are more extensively regulated and have had exhaustive anatomy syllabi for a number of years (McHanwell et al., 2007; Smith et al., 2016). Using these well-established syllabi as a starting point, the Anatomical Society has engaged in two comprehensive Delphi processes to produce discipline specific syllabi for students of nursing and pharmacy (McHanwell et al., 2007; Smith et al., 2016a). Delphi is a research method utilized to elicit and refine group judgements (Finn et al., 2018). Frequently referred to as a process approach, technique or study, it typically takes the form of a consensus survey and has been consistently utilized within healthcare (McHanwell et al., 2007; Moxham et al., 2014; Smith et al., 2016a; Connolly et al., 2018; Finn et al., 2018). Through an iterative process, Delphi enables group problem-solving with the overarching aim to achieve consensus, as demonstrated within our latest studies (Finn et al., 2018; Connolly et al., 2018). The rationale for Delphi is often based on the adage that ‘two heads are better than one’ (Dalkey et al., 1969), which is especially true for areas such as anatomy syllabi for pharmacists and nurses, where information is sparse. Finally,

Delphi approaches are popular because they afford anonymity, iterations and controlled feedback while forcing decision-making – all of which are useful in minimizing potential biases from dominant opinions (Dalkey et al. 1969).

Each syllabus presents a systemic list of learning outcomes, as well as presenting additional contextual information to help with their blueprinting into integrated curricula. The nursing syllabus includes 64 outcomes, pharmacy presents 49. The outcomes can be utilized as they are, or can be modified to suit individual contexts or levels by altering the associated action verbs or the specific anatomical detail required of the students. The clinical contextual information aims to assist with signposting the clinical application of the anatomical content suggested. The syllabi may also open the door to fostering further interprofessional anatomy education (Kirch, 2015; Smith et al., 2015).

It is hoped that the syllabi produced are not only useful for educators but also for students, as a method of communicating the intentions of the course and providing guidance for students on what to learn. This, consequently, enables better planning for faculty and students alike. Higher education institutions from across the United Kingdom (UK) have contributed to this process, involving experts from a range of environments and backgrounds. Importantly, however, although the syllabi have been developed within the UK, they have been designed with the intention of having international applicability.

We hope that these syllabi are a useful tool for educators who are struggling to retain teaching hours for anatomy within their curricula, by demonstrating that anatomy is

crucial for safe practice and requires significant time within students' formative years of education. In other words, a curricula reform may be required. Most importantly, it is hoped that by increasing and improving the anatomical knowledge of allied health professionals, patients will be treated by more competent staff thus improving satisfaction safety and care.

Gabrielle M. Finn, B.Sc (Hon.), P.G.C.E., Ph.D., F.H.E.A., F.A.S, P.G.C.E.L.M.

Health Professions Education Unit

Hull York Medical School

University of York, York, United Kingdom

Siobhan A. Connolly, B.Sc. (Hon.), MSc.

Department of Anatomy

University of Edinburgh, Edinburgh, United Kingdom

Thomas H. Gillingwater, B.Sc (Hon.), M.B.A., Ph.D., F.A.S, F.R.S.B.

Department of Anatomy

University of Edinburgh, Edinburgh, United Kingdom

Claire F. Smith, B.Sc (Hon.), P.G.C.E., Ph.D., S.F.H.E.A., F.A.S, F.L.F.

Department of Medical Education

Brighton and Sussex Medical School

University of Sussex, Brighton, United Kingdom

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